**Newquay Junior Academy - Summer Sequence - Year 5**

**‘Changes and Differences’**

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| **SCIENCE****Prior knowledge...** Animals including humans Describe the simple functions of the basic parts of the digestive system in humans. Identify the different types of teeth in humans and their simple functions. Materials (mixture and separation)Identify and name a variety of everyday materials, including wood, plastic, glass, metal, water, and rock and simply describe their physical properties. |  | **COMPUTING – FIRST HALF TERM****Prior knowledge…** Pupils should have experience of making choices on a tablet/computer. They should be able to navigate within an application. This unit progresses pupils’ skills through editing digital images and considering the impact that editing can have on an image. Pupils will also consider how editing can be used appropriately for different scenarios, and create and evaluate ‘fake’ images, combining all of their new skills. |  | **COMPUTING – SECOND HALF TERM****Prior knowledge…**This unit assumes that learners will have some prior experience of programming; the KS1 NCCE units cover floor robots and ScratchJr, and Scratch is introduced in the Year 3 programming units. However, experience of other languages or environments may also be useful. |  |
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| **INTENT**Animals including humansPupils will be able to describe the different stages of a human life cycle.Materials (mixture and separation)Pupils will be able to explain that some materials will dissolve in liquid to form a solution, and describe how to recover a substance from a solution. They will also be able to use their knowledge of solids, liquids, and gases to decide how mixtures might be separated, including through filtering, sieving and evaporating. . |  | **INTENT**In this unit, learners start to create vector drawings. They learn how to use different drawing tools to help them create images. Learners recognise that images in vector drawings are created using shapes and lines, and each individual element in the drawing is called an object. Learners layer their objects and begin grouping and duplicating them to support the creation of more complex pieces of work. |  | **INTENT**In this unit, pupils develop their knowledge of ‘selection’ by revisiting how ‘conditions’ can be used in programming, and then learning how the ‘if… then… else...’ structure can be used to select different outcomes depending on whether a condition is ‘true’ or ‘false’. They represent this understanding in algorithms, and then by constructing programs using the Scratch programming environment. They learn how to write programs that ask questions and use selection to control the outcomes based on the answers given. They use this knowledge to design a quiz in response to a given task and implement it as a program. To conclude the unit, learners evaluate their program by identifying how it meets the requirements of the task, the ways they have improved it, and further ways it could be improved. |  |
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| **VOCABULARY/STICKY KNOWLEDGE**Animals including humans - foetus, embryo, womb, gestation, baby, toddler, teenager, elderly, growth, development, puberty, hormone, physical, emotional.Different animals mature at different rates and live to different ages.Puberty is something we all go through, a process which prepares our bodies for being adults, and reproduction. Hormones control these changes; which can be physical and/or emotional.Materials (mixture and separation) - solid, liquid, gas, particles, state, materials, properties, matter, melt, freeze, water, ice, temperature, process, condensation, evaporation, water vapour, energy, precipitation, collectionWhen two or more substances are mixed and remain present the mixture can be separated. Some changes can be reversed and some can’t. Materials change state by heating and cooling. Sometimes mixed substances react to make a new substance. These changes are usually irreversible. |  | **VOCABULARY/STICKY KNOWLEDGE**Vector drawing, drawing tools, objects, layers, grouping, duplicating |  | **VOCABULARY/STICKY KNOWLEDGE**Selection, conditions, true, false, algorithm, program  |  |
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| **SEQUENCE OF LESSONS:****Animals including humans** What if the average human lifespan was 200 years?1. To create a timeline of a human life.2. To study the development from foetus to birth.3. To work scientifically to investigate gestational periods.4. To learn about the changes experienced in puberty.**Materials (Mixture and separation)** Investigating using water and cornflour – changing a liquid into a solid when held.1. To know that some materials will dissolve in a liquid to form a solution.2. To use knowledge of solids, liquids and gases to decide how mixtures might be separated, including through filtering, sieving and evaporating.3. To explain that some changes result in the formation of new materials, and these are not usually reversible.4. To practically investigate the process of oxidation.  |  | **SEQUENCE OF LESSONS:**1. To search for information about an individual online and summarise the information found.2.To identify that drawing tools can be used to produce different outcomes 3. To create a vector drawing by combining shapes4. To use tools to achieve a desired effect5. To recognise that vector drawings consist of layers 6. To group objects to make them easier to work with7. To apply what I have learned about vector drawings |  | **SEQUENCE OF LESSONS:**1. To explain how to block abusive users.2.To explain how selection is used in computer programs3. To relate that a conditional statement connects a condition to an outcome4. To explain how selection directs the flow of a program5. To design a program that uses selection6. To create a program that uses selection7. To evaluate my program |  |
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| **OUTCOME/COMPOSITE**Animals including humans Pupils will produce their own human timeline.Materials (Mixture and separation)Pupils will have practically investigated reversible and irreversible changes. |  | **OUTCOME/COMPOSITE**This unit progresses learners’ knowledge and understanding of digital painting and has some links to the Year 3 ‘Creating media – Desktop publishing’ unit, in which learners used digital images. In this Year 5 unit, learners create images that could be used in desktop publishing documents.. |  | **OUTCOME/COMPOSITE**This unit assumes that learners will have prior experience of programming using block-based construction (e.g. Scratch), understand the concepts of ‘sequence’ and ‘repetition’, and have some experience of using ‘selection’. Ideally, learners will have completed ‘Programming A – Selection in physical computing’ before undertakinthisunit, as this will provide them with the required knowledge of ‘selection’. |  |



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| **RELIGIOUS EDUCATION – FIRST HALF TERM****Prior knowledge...** **...** This half term of RE will draw on the children’s understanding of **Islam** from **KS1** and **Y3.** **Y3** (Unit L2.9) |  | **RELIGIOUS EDUCATION – SECOND HALF TERM****Prior knowledge** This half term of RE will draw on the children’s understanding of **Hinduism** from **KS1** and **Y3**.**Y3** (Units L2.7 & L2.8) |  | **PHYSICAL EDUCATION – FIRST HALF TERM****Prior knowledge…** Pupils should be able to identify that athletics includes running, jumping and throwing events. Pupils will be able to perform all of these with a sound technique. |  |
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| **INTENT****Islam (Unit U2.8)****Key Question: What does it mean to be a Muslim in Britain today? (Tawhid/Iman/Ibadah)** |  | **INTENT****Hinduism (Unit U2.7)** **Key Question: Why do Hindus want to be good?** |  | **INTENT**In ATHLETICS, pupils will continue to build on the fundamental skills they learnt in years 3 & 4. Pupils should be able to apply and develop their skills to enable them to perform Primary Athletic Events.  |  |
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| **VOCABULARY/STICKY KNOWLEDGE****Quran**: The Quran is the most sacred object in the daily lives of Muslims. Islam teaches that the holy book is the direct word of God, received by the prophet Muhammad through the angel Gabriel, and it defines the belief and conduct for followers of the religion.**Hajj:** Is an annual Islamic pilgrimage to the holy city of Mecca in Saudi Arabia, which every adult Muslim must make at least once in his or her lifetime. The hajj is one of the Five Pillars of Islam.**Zakah**: The practice where a Muslim gives 2.5 per cent of their earnings to charity, after they have paid for what is necessary to support themselves and their families.**Hadith**: Words, actions and instructions of the Prophet Muhammad as reported by the people around him during his life. |  | **VOCABULARY/STICKY KNOWLEDGE**Hinduism. The most significant forms of Brahman are Brahma, Shiva and Vishnu.**Dharma**: Is the spiritual law for human beings. It is the way of goodness, truth and duty. For example, a child's dharma is to be a good student. Parents’ dharma is to raise and support their family. **Karma**: is a Sanskrit word which means deed, work or action. It mainly means that the actions or intent of an individual will determine his or her future, and is the spiritual principle of cause and effect. If you do good, then you can expect good to happen to you, but if you do bad, you can only expect bad to happen to you.**Samsara**: Means the conditioned state of mind. It is the cycle of ignorance, leading to disturbing emotions and clumsy actions. They in turn are cause for suffering and new disturbing feelings and so on.**Moksha**: Hindus believe that the soul passes through a cycle of successive lives (samsara) and its next incarnation is always dependent on how the previous life was lived (karma). |  | **VOCABULARY/STICKY KNOWLEDGE**Technique Rules Pacing Sprinting Jumping Throwing Baton Changeovers Strength Power Relay |  |
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| **SEQUENCE OF LESSONS:**1. To identify how many Muslims there are in Cornwall/South West. 2. To identify what helps Muslims through the journey of life.3. To understand why Zakah/charity is important to Muslims.4. To recognise why Muslims want to go on a Pilgrimage.1. To identify where Muslims get guidance for life. |  | **SEQUENCE OF LESSONS:**1. To identify the key beliefs for Hindus.2. To understand what Brahman is.3. To understand what atman is and identify can be learned about atman through a Hindu story.4. To understand why the atman is important (Samsara) and identify what else is important.5. To identify how the dharma may affect the way that someone might live their life |  | **SEQUENCE OF LESSONS**1.To be able to sprint with a solid technique and understand the rules involved with a baton changeover in relay. 2. Understand the term ‘pacing’ and apply in a long-distanced run with a developing understanding of strategies.3. To explore different types of jumps and be able to jump using a safe technique.4.To explore different jumping combinations of hop, step, jump. 5. To be able to perform a ‘pull’ throw with a solid technique and understand the safety commands involved in throwing. 6.To understand the concept of a ‘push’ and ‘sling’ throw and be able to identify these in athletics events. |  |
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| **OUTCOME/COMPOSITE**Pupils to compare life as a Muslim in Britain with life in the Middle East via a video call with a school in Jeddah.**\* (Confirmed with S Nicholls).**. |  | **OUTCOME/COMPOSITE**Pupils to understand the importance of Dhama to Muslims. What could they do to be ‘good’? Pupils to pledge one thing that they could do to be a ‘good student’ – linked to NJA values.  |  | **OUTCOME/COMPOSITE**Pupils will be able to identify that athletics includes running, jumping and throwing events. Pupils will be able to sprint, run whilst pacing, participate in a relay with a baton change over, jump using a developing technique and throw with a developing technique.  |  |

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| **PHYSICAL EDUCATION – SECOND HALF TERM****Prior knowledge…** Pupils will continue to develop their throwing and catching techniques and will begin to be able to catch under pressure. They will understand the safety rules involved whilst batting and they will be able to play small games in-line with the rules. |  | **PSHE – FIRST HALF TERM****Prior knowledge...** **...** Know that change is a natural part of relationships/ friendship • Know that sometimes it is better for a friendship/ relationship to end if it is causing negative feelings or is unsafe |  | **PSHE – SECOND HALF TERM****Prior knowledge...** names of the different internal and external body parts that are needed to make a baby • how the female and male body change at puberty • personal hygiene is important during puberty and as an adult |  |
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| **INTENT**In ROUNDERS and CRICKET, pupils will apply and develop skills learnt in Years 3 & 4 into rounders and cricket games. They will be able to work together as a team and start to use the application of strategies and tactics. . |  | **INTENT****Pupils will…**learn about the importance of self-esteem and ways this can be boosted; investigate and reflect upon a variety of positive and negative online/ social media contexts including gaming and social networking. |  | **INTENT****Pupils will …** learn that we all have perceptions about ourselves and others, and these may be right or wrong; reflect on how social media and the media can promote unhelpful comparison and how to manage this; look at what becoming a teenager means for them with an increase in freedom, rights and responsibilities |  |
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| **VOCABULARY/STICKY KNOWLEDGE**English catch Australian catch Strategies Rounders positions Deep fielder No-ball Wicket  |  | **VOCABULARY/STICKY KNOWLEDGE**Personal attributes, Qualities, Characteristics, Self-esteem, Unique, Comparison, Negative self-talk, Social media, Online, Community, Grooming, Troll, Gambling, Betting, Trustworthy, Appropriate, Screen time, Physical health, Mental health, Off-line, Social, Peer pressure, Influences, Personal information, Passwords, Privacy, Settings, Profile, SMARRT rules. · Know that there are rights and responsibilities in an online community or social network· Know how to stay safe when using technology to communicate with friends  |  | **VOCABULARY/STICKY KNOWLEDGE**Body-image, Self-image, Characteristics, Looks, Personality, Perception, Self-esteem, Affirmation, Comparison, Uterus, Womb, Oestrogen, Fallopian Tube, Cervix, Develops, Puberty, Breasts, Vagina, Vulva, Hips, Penis, Testicles, Adam’s Apple, Scrotum, Genitals, Hair, Broader, Wider, Sperm, Semen, Erection, Ejaculation, Urethra · Know how girls’ and boys’ bodies change during puberty and understand the importance of looking after themselves physically and emotionally · Know that sexual intercourse can lead to conception |  |
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| **SEQUENCE OF LESSONS**1.To recap underarm and overarm throws and be able to identify the fielding positions in rounders.2.To be able to bat and vary the powers and direction in rounders using a solid technique. Pupils will understand the safety aspects involved in batting.3. To know the basic rules for rounders and be able to apply skills into a game. 4.To know the difference between an ‘English’ and ‘Australian’ catch and understand the importance of ‘cushioning’ the ball when catching it.5.To be able to bat using the correct technique in cricket.6. To be able to play a game of ‘kwik cricket’ inline with the rules.  |  | **SEQUENCE OF LESSONS:**1.To begin how to recognize my own worth  2.Discuss safety with online communities  3.Understand what it means to be part of an online community  4.To discuss the role of online gaming in their life.  5.To consider our relationship with technology: screen time |  | **SEQUENCE OF LESSONS:**1..To develop their understanding of self and body image  2.To consider the changes for girls during puberty 3.To consider the changes for boys during puberty  4.To understand how conception can lead to babies being born 5.To know who to ask if they are worried about change. |  |
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| **OUTCOME/COMPOSITE**Pupils will be able to throw and catch using both underarm and overarm throws. Pupils will have a developing understanding of techniques involved whilst batting. Pupils will be able to play both rounders and kwik cricket in line with the rules. |  | **OUTCOME/COMPOSITE**Pupils will… Know that there are rights and responsibilities in an online community or social network  Know that there are rights and responsibilities when playing a game online |  | **OUTCOME/COMPOSITE****Pupils will…**Know how girls’ and boys’ bodies change during puberty and understand the importance of looking after themselves physically and emotionally  Know that sexual intercourse can lead to conception |  |

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| **DESIGN TECHNOLOGY****Prior knowledge...**Pupils can:Produce a range of free-standing frame structures of different shapes and sizes.Design a pavilion that is strong, stable and aesthetically pleasing.Select appropriate materials and construction techniques to create a stable, free-standing frame structure.Select appropriate materials and techniques when constructing |  | **MUSIC - YEAR 5 - South and West Africa****Prior knowledge...*** Samba music originated in Brazil, South America and its main musical feature is syncopated rhythms.
* The ‘on beat’ is the pulse of a piece of music, and the ‘off beat’ is beats that fall in between these.
* A rhythmic break is a place in the music where some of the instruments play a new rhythm before going back to the original rhythms.
 |  | **GEOGRAPHY** |  |
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| **INTENT****Structures: Bridges****In this topic, children learn and investigate the different types of bridges and what features allow them to support a large amount of weight. Children design, make and evaluate their own truss bridge.** |  | **INTENT**To recognise music from another culture and play rhythms and eight-beat breaks as part of an ensemble. |  | **INTENT** |  |
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| **VOCABULARY/STICKY KNOWLEDGE****beam bridge, arch bridge, truss bridge, strength, technique, corrugation, lamination, stiffness, rigid, factors, stability, visual appeal, aesthetics, joints, mark out, hardwood, softwood, sandpaper/glass paper, bench hook/vice, tenon saw/coping saw, assemble, material properties, reinforce, evaluate, quality of finish, accuracy** |  | **VOCABULARY/STICKY KNOWLEDGE**performance, chord, improvisation, ostinato, break, poly-rhythms, master drummer, syncopation, metronome* Songs sung in other languages can contain sounds that are unfamiliar to us, like the clicks of the Xhosa language.
* ‘The Click Song’ is a traditional song sung in the Xhosa language and is believed to bring good luck at weddings.
* Major chords create a bright, happy sound.

Poly-rhythms means many rhythms played at once. |  | **VOCABULARY/STICKY KNOWLEDGE** |  |
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| **SEQUENCE OF LESSONS:****Lesson 1: Arch and beam bridges**To explore how to reinforce a beam (structure) to improve its strength**Lesson 2: Spaghetti truss bridges** |  | **SEQUENCE OF LESSONS:****Lesson 1: ‘Shosholoza’ a cappella**To sing a traditional African song unaccompanied. **Lesson 2: Playing ‘Shosholoza’**To use untuned percussion to play a chord progression. **Lesson 3: The ‘Shosholoza’ show**To use vocals or tuned percussion to perform a piece of music as an ensemble. **Lesson 4: Drumming away to Africa**To play call and response rhythms using percussion instruments. **Lesson 5: Eight-beat breaks**To create an eight beat break to play within a performance.  |  | **SEQUENCE OF LESSONS:** |  |
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| **OUTCOME/COMPOSITE****Children make a truss bridge out of softwood. Children test and evaluate their structure.** |  | **OUTCOME/COMPOSITE**Maintain their part in a performance with accuracy.Play the more complicated rhythms in time and with rests.Create an eight-beat break and play this in the correct place. Perform the above to a Y5 class in another school. |  | **OUTCOME/COMPOSITE** |  |

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| **HISTORY****Prior knowledge…** Pupils will have learnt about Explorers through a Tudor theme **The Early Islamic Civilisation** |  | **SPANISH****Prior knowledge…** remember and use simple nouns, adjectives and verbs with simple conversations from last term. |  | **ART****Prior knowledge…**Colours can be mixed together, all originating from the 3 primary colours.Contrast can be created with black and white / light and shade / intense and faint. |  |
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| **INTENT**Pupils will learn about how advanced early civilisations were, how the empires spread and what we can learn from them |  | **INTENT**Pupils will understand and respond to at least four questions about personal information. Can write more than one descriptive sentence about an imaginary planet.Pupils will say and write several sentences to explain what there is to do at the seaside. |  | **INTENT**Pupils will carry out an artist study about Chuck Close and explore his styles and media that he used.They will explore the use and application of colour. They will look at how artists use colour for impact. They will explore ways to draw (using different techniques and textures) and apply colour in new ways to create shade, highlights and form, building up an image. |  |
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| **VOCABULARY/STICKY KNOWLEDGE**Caliph, Golden Age, House of Wisdom, mosque, Qur’an, rebab, Shiite, sunni, watermill, zamr |  | **VOCABULARY/STICKY KNOWLEDGE**Mercurio- MercuryVenus- VenusPlutón- PlutoJúpiter- JupiterMarte- MarsSaturno- SaturnUrano- UranusNeptuno- NeptuneEl Sol – the SunLa Luna- the MoonLa Tierra- the EarthLos astronautas- the astronautsEl planeta- the planetLas estrellas- the starsEspacio- SpaceEl cohete – the rocketNombre – first nameApellido – surnameEdad- ageFecha de nacimento- date of birthDirección - addressNúmero de teléfono - telephone numberNacionalidad- NationalityColor de ojos- colour of eyesMe llamo- I am calledVivo en - I live in….Tengo ….años - I am ….years oldSoy….- I am No soy…. I am notEs… It is….La playa- the beachLos helados- the ice creamsLos castillos de arena – the sandcastlesLas frutas- the fruitsEl sol- the sun(shine)La mochila – the rucksackLas gafas de sol - the sunglassesLas chanclas- the flip flopsEl sombrero – the hatLa crema de sol- the sun creamEl bañador - the swim suitPuedes / podemos – you can/we canVen a …. – come along to..Va a ser genial – it’s going to be ..tomar el sol – to sunbathe hacer- to makecomer- to eatjugar (al fútbol/ al voleibol)- to play(football/volleyball)nadar-to swim |  | **VOCABULARY/STICKY KNOWLEDGE**Chuck Close is a disabled, American contemporary artist (born 1940) who creates large, often pixelated, paintings.Colour can be darker (using shaded hues) or lighter (using tinted hues). Different media or different application can create lighter or darker hues. Complementary colours are used for impact. Analogous colours can be used to fade or blend colours and tones.Pixels build up to form an image |  |
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| **SEQUENCE OF LESSONS:**1. Why is it important to know about Islamic civilization civilization in the 10th century?
2. How was the Islamic civilization able to spread so far, so quickly?
3. What can we learn about early Islamic civilzations from the way they set up the capital at Baghdad?
4. So what was so special about Baghdad?
5. Just how amazing was daily life for rich people in Islamic cities such as Baghdad and Cordoba?
6. How does this early Islamic Empire affect our lives today?
 |  | **SEQUENCE OF LESSONS:**1. To explore a city in Spain.
2. To design a city of the future,
3. To understand and give simple information about a city.
4. To ask for an entrance ticket politely.
5. To understand and say nouns for shop items.
6. To politely ask for a gift in a shop.

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2. To read aloud sentences about the seaside
3. To create simple persuasive extended sentences
4. To understand the nouns for items I take to the beach
5. To read and understand facts about going to the beach
6. To follow a story about going to the beach
 |  | **SEQUENCE OF LESSONS:**1.To develop different drawing techniques using texture, line and tone. To create a grid of ideas in 2b pencil for sketchbook.2.To investigate colour theory by mixing colours (including tints) and identifying warm, cool, complementary and analogous colours3.To study the life, works and style of the contemporary artist, Chuck Close. and to experiment with his style in coloured squares.4.To create a prepared group piece of a given character, in the style of Chuck Close. 5. (optional) To create your own artwork of any inspiring character or person, inspired by Close’s techniques. 6.To complete a fact file about Chuck close and his style.  |  |
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| **OUTCOME/COMPOSITE**Pupils will have the opportunity to chat with Sian Nicholls who is currently living in Jeddah and maybe do a virtual tour of a mosque (RE links) |  | **OUTCOME/COMPOSITE**Follow a bilingual story. Design a city and label.Spoken and written presentation about going to the beach. |  | **OUTCOME/COMPOSITE**Pupils will further develop drawing and colour skills, using colour and pattern to provide shade and form. As well as preparatory and exploratory work in sketchbooks, they will produce a large collaborative portrait in the style of Close. |  |
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